

## REMARKS

Claim 1 is amended to include the limitations of claim 3, which is now canceled, and further amended to clarify that user input drives the selection of one of a plurality of optimization methods and one of a plurality of objective functions. Neither of the cited references appears to teach or suggest the combination of user selection from both multiple optimization methods and multiple objective functions.

Claims 4 and 5 are amended to change the designation of the claim from which they depend.

Claim 7 is amended to clarify user selection of a server model and a service model, which the prior art does not appear to suggest.

Claims 11 and 13 are canceled for being redundant with the amended claims.

The rejections presented in the Office Action dated May 31, 2005 have been considered. Claims 1-2, 4-10, 12, and 14-18 remain pending in the application. Reconsideration and allowance of the application are respectfully requested.

Terminal disclaimers are filed herewith in response to the double patenting rejection.

The Office Action does not establish that claims 1, 11 and 14 are anticipated under 35 USC §102(e) by "Pace" (U.S. Patent Publication No. 2003/0051236 to Pace et al.). The rejection is now moot, however, because claims 1 and 14 are amended to clarify user selectability of both an optimization method from a plurality of optimization methods and an objective function from plurality of objective functions. Furthermore, as explained below in the traversal of the rejection under 35 §103(a) over Pace, Pace neither teaches nor suggests user selection from both a plurality of optimization methods and from a plurality of objective functions.

The Office Action fails to establish that claims 2-4, 6, 7, 12, 13 and 15 are unpatentable under 35 USC §103(a) over Pace. The rejection is respectfully traversed

because the Office Action fails to show that all the limitations are suggested by Pace and fails to provide a proper motivation for modifying the teachings of Pace.

Claim 1, as amended with the limitations of claim 3, includes limitations of selecting in response to user input one of a plurality of user-selectable optimization methods, and selecting in response to user input one of a plurality of user-selectable objective functions, wherein each of the objective functions evaluates a solution as a function of the demand and capacity attributes. The selected optimization method and selected objective function are used to generate an optimized mapping. This combination of limitations is not shown to be suggested by Pace.

The cited teachings of Pace apparently teach different optimization models [0808] – [0811]. There is no apparent teaching of both a plurality of user-selectable optimization methods (e.g., page 15, l. 23-24, genetic algorithms and simulated annealing) and a plurality of user-selectable objective functions (e.g., page 15, l. 24-26, load balancing, traffic balancing, traffic minimization). This combination allows the user to evaluate several different possible solutions (p. 15, l. 18-19).

Claim 4 includes further limitations of the plurality of optimization methods including a genetic process and a complete search process, and these limitations are not shown to be obvious over Pace. The Office Action fails to recognize the distinction between the optimization methods and objective functions as set forth in the claims. Specifically, the Office Action cites Pace's load balancing, migration, transport, and QoS as meeting the limitations of the optimization methods. However, these teachings relate to the claimed objective function, not the optimization methods. Furthermore, no evidence is presented to suggest that both the genetic process and a complete search process are available for user selection.

The alleged motivation for modifying Pace to include the claimed optimization methods is conclusory and improper. The alleged motivation states that because load balancing and other models are well known it would lead one of ordinary skill in the art to realize use of genetic processes and complete search processes in optimization. No evidence is presented however to support this conclusion. Without supporting evidence, the alleged motivation is insufficient to support a *prima facie* case of obviousness.

As to claim 6, Pace does not teach selection of one of a plurality of objective functions in combination with selection of one of a plurality of optimization methods, even though Pace teaches load balancing and QoS models.

The Office Action does not establish that claims 7, 12, 13, and 15 are unpatentable for at least the reasons set forth above.

The rejection of claims 2-4, 6, 7, 12, 13 and 15 over Pace should be withdrawn because the Office Action fails to show all the limitations are suggested by Pace and fails to provide a proper motivation for modifying Pace.

The Office Action fails to establish that claims 5, 8-10 and 16-18 are unpatentable under 35 USC §103(a) over Pace in view of "Hauser" (U.S. Patent No. 6,889,956 to Hauser et al.). The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by Pace and Hauser and fails to provide a proper motivation for modifying the teachings of Pace with teachings of Hauser.

Claim 5 depends from claim 1 and the Office Action does not show that the Pace-Hauser combination suggests all the limitations of the claim. For example, claim 5 includes further limitations of establishing one or more service-node relationships between selected pairs of the service nodes, wherein each service-node relationship has an associated transport demand attribute specifying a quantity of communication resources required for communication between the associated pair of service nodes. The cited teachings of Hauser do not correspond to these claim limitations as alleged.

The Office Action cites Hauser's FIG. 1 and relationship between programming department 22 and engineering department 16 as corresponding to these limitations. However, attempting to correspond the claim limitations to these teachings of Hauser shows that Hauser does not suggest all the claim limitations. Specifically, Hauser's teachings in no apparent manner suggest that the programming department 22 has a quantity of communication resources required for communication between the programming department and engineering department. Hauser's FIG. 1 shows levels of a company to which bandwidth is allocated (col. 3, l. 66 – col. 4, l. 19). Hauser's programming department and hardware department are part of the logical entity of the

engineering department. Since the engineering department is a logical category, there is no apparent demand for a quantity of communication from the programming department to the engineering department.

The alleged motivation for combining Hauser with Pace is conclusory and improper. The alleged motivation states that "it would have been obvious ... to combine the teaching of Hauser with Pace since Pace discloses that load balancing models are well known in the art, this would motivate one of ordinary skill in the art for other methods of hierarchical resource management, eventually finding Hauser and its use of Maximum allowed values, and minimum guaranteed values (e.g. abstract)." No evidence is presented to support the alleged applicability or use of Hauser's hierarchical resource management to Pace's distribution of software and data on different network platforms. For example, no evidence is presented to indicate any deficiency or need of Pace that would be satisfied by a specific teaching of Hauser. Thus, the alleged motivation is improper.

As to claims 8-10 and 16-18, the cited teachings of Hauser do not suggest the claim limitations as explained above, and the alleged motivations for modifying Pace with teachings of Hauser are unsupported by evidence.


The rejection of claims 5, 8-10 and 16-18 over Pace should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination and fails to provide a proper motivation for modifying Pace with teachings of Hauser.

Withdrawal of the rejection and reconsideration of the claims are respectfully requested in view of the remarks set forth above.

No extension of time is believed to be necessary for consideration of this response. However, if an extension of time is required, please consider this a petition for a sufficient number of months for consideration of this response. If there are any additional fees in connection with this response, please charge Deposit Account No. 50-0996 (HPCO.061PA).

Respectfully submitted,

CRAWFORD MAUNU PLLC  
1270 Northland Drive, Suite 390  
Saint Paul, MN 55120  
(651) 686-6633

By:   
Name: LeRoy D. Maunu  
Reg. No.: 35,274